

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. When strikethrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1 and 5 in accordance with the following:

1. (Currently amended) A method for detecting *in situ* a DNA strand break, comprising:

binding a PprA protein ~~derived from~~ having an amino acid sequence of SEQ ID NO: 1, which is obtained from *Deinococcus radiodurans*, ~~(SEQ ID NO: 1)~~ to a DNA strand break; and

detecting *in situ* the PprA protein bound to the DNA strand break using an antibody or a fragment thereof which specifically binds to the PprA protein.

2. (Canceled)

3-4. (Canceled)

5. (Currently amended) A kit for detecting *in situ* a DNA strand break, comprising:  
an amount of PprA protein ~~derived from~~ having an amino acid sequence of SEQ ID NO: 1, which is obtained from *Deinococcus radiodurans* ~~(SEQ ID NO: 1)~~; and  
an antibody or a fragment thereof which specifically binds to the PprA protein.

6. (Canceled)

7-8. (Canceled)

9. (Canceled)

10. (Previously presented) The method for detecting *in situ* a DNA strand break according to claim 1, wherein the antibody is a polyclonal antibody or a monoclonal antibody or the fragment thereof which is selected from the group consisting of Fab, F(ab')<sub>2</sub>, and Fab'.

11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Previously presented) The kit for detecting *in situ* a DNA strand break according to claim 5, wherein the antibody is a polyclonal antibody or a monoclonal antibody or the fragment thereof which is selected from the group consisting of Fab, F(ab')<sub>2</sub>, and Fab'.
15. (Canceled)
16. (Canceled)